**Physiology of Exercise**

**KINE 7680 Course Syllabus**

**Summer 2018**

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**Instructor:** Dr. Jim McDonald

**Office:** RM 169, Kinesiology Building, 301 Wire Rd

**E-mail:** jrm0013@auburn.edu

**Office Hours:** Tues and Thurs 1 - 3 pm or make an appointment via email

**Class Schedule:** M - F at 8:00 – 9:29 pm

**Meeting Location:** *KINE Rm 126*

**Course Description:** This course will focus on the physiological, anatomical, biochemical and molecular aspects of exercise physiology.

**Class Objectives:** upon completion of this course students should demonstrate an understanding of:

* The physiological adaptations that occur in response to exercise
* The physiological aspects of muscle, respiratory, cardiovascular responses to exercise
* Basic concepts of bioenergetics, muscle, respiratory & cardiovascular physiology

**Required Text:** Powers, S.K & Howley, E. T. (2015 or 2017). *Exercise Physiology: Theory and Application to Fitness and Performance. (9th or 10th Ed.)* New York, NY: McGraw-Hill Humanities

**Grading Rubric:**

|  |  |  |
| --- | --- | --- |
| **Assignments** | **Description** | **Points** |
| Tests | Lecture based exams **(4)**\*50 points each | 200 / 80% |
| Final Exam | Final Exam **(1)** | 50 / 20% |
| **Total** | **-**  | **250 / 100%** |

* Lecture based Tests will be given on scheduled exam days.
* Final Exam will be given on a scheduled day according to Auburn University’s final exam schedule posted by the Office of the Registrar.

**Grade Distribution:**

|  |  |  |
| --- | --- | --- |
| **Letter Grade**  | **Point Range**  | **Percent Scale %**  |
| A  | 225 - 250 | 90-100  |
| B  | 200 - 224  | 80-89  |
| C  | 175 - 199  | 70-79  |
| D  | 150 - 174  | 60-69  |
| F  | <150 | <60  |

**Extra Credit** – There is no extra credit in this class; there is only credit. Should “extra” credit opportunities arise, they will be offered to all students in the class.

**CLASS POLICIES:**

**Attendance and Late-work**Please refer to the Student Policy eHandbook ([www.auburn.edu/studentpolicies](http://www.auburn.edu/studentpolicies)) for the definition of excused absences. Attendance is not mandatory as such, class attendance will not directly impact your course grade. Students will be expected, should they choose to be absence for any excused or unexcused reasons, to obtain all information necessary for successful completion of this course.Make-up quizzes or exams can be re-scheduled for any excused absence, but unexcused absences will result in a zero for the missed assignment.

**Exam attendance**Exam dates will be announced in class at least one week prior of the scheduled exam date. Missed exams will result in 0 points for that portion of the course grade, no exceptions. **Excused absences on exam dates must be arranged prior to the start of the exam for makeup consideration.** Students who do not contact me in advance of their missed exam will not be allowed to take the exam at a later date. The student is responsible for being aware of scheduled exams even in the event that a student misses a class where an exam is announced for excused or unexcused reasons.

**Cell Phone policy**Cell phones must be turned off or on silent mode during class and not present from view. You will not be prohibited from answering cell phone calls during class time, though you will be required to leave class to answer a call. Texting in class will not be tolerated. Students observed texting will be removed from class. Cell phones and other handheld devices may not be used or visible during exams. If you need a calculator during an exam, you must bring a “low-tech” device that is not capable of text messaging. Students choosing to have a texting device visible during an exam will receive a 0 grade for that exam.

**Disability and other accommodations**Students who need special accommodations in class, as provided by the Americans with Disabilities Act, should follow university-approved procedures. If you need assistance, make an appointment with the Program for Students with Disabilities, 1244 Haley Center 844-2096. Accommodations for examinations should be discussed with the instructor at least one week prior to the scheduled examination.

**Honesty Code**The Auburn University student academic honesty code Title XII found on the University Policies webpage (<https://sites.auburn.edu/admin/universitypolicies/default.aspx>) applies to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

**Professionalism**As faculty, staff, and students interact in educational settings, they are expected to demonstrate professional behaviors as defined in the College of Education’s conceptual framework. These professional commitments are as follows: 1) engage in responsible and ethical practices, 2) contribute to collaborative learning communities, 3) demonstrate a commitment to diversity, and 4) model and nurture intellectual vitality.

**Contingency Plan**If the normal schedule is disrupted, the syllabus and other course plans may be modified to allow for completion of the course. Your instructor is aware that things may arise and affect the course of work as a class; in that case, your instructor will provide an addendum to your current syllabus with revised course assignments which will then replace this syllabus and all its content.

**Course Schedule**

\*The below content, schedule and procedures in this course are subject to change at the discretion of the instructor
\*One class cancelation is reserved in case of unexpected circumstances, which will be used at some point throughout the semeste

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| --- | --- | --- |
| **Date**  | **Course Topic** | **Reading**  |
| 5/17 Thursday  | Introduction and syllabus Jobs and internships | ---  |
| 5/18 Friday | Control of the Internal EnvironmentBioenergetics | Chapter 2 & 3 |
| 5/21 Monday | Bioenergetics | Chapter 3  |
| 5/22 Tuesday | Exercise Metabolism | Chapter 4  |
| 5/23 Wednesday | Exercise MetabolismCell Signaling and the Hormonal  | Chapter 4 & 5  |
| 5/24 Thursday | Cell Signaling and the Hormonal Test#1 Review  | Chapter 5  |
| 5/25 Friday | **Test #1**  | CH 2, 3, & 4  |
| 5/28 Monday | Memorial Day | No class |
| 5/29 Tuesday | Cell Signaling and the Hormonal Skeletal Muscle | Chapter 5 & 8  |
| 5/30 Wednesday | Skeletal MuscleNervous System | Chapter 7 & 8 |
| 5/31 Thursday | Nervous SystemTest #2 Review | Chapter 7  |
| 6/1 Friday | **Test #2**  | CH 5,7 & 8  |
| 6/4 Monday | Circulatory Response to Exercise | Chapter 9  |
| 6/5 Tuesday | Circulatory Response to Exercise Respiration During Exercise | Chapter 9 & 10  |
| 6/6 Wednesday | Respiration During ExerciseAcid-Base Balance During Exercise | Chapter 10 & 11  |
| 6/7 Thursday | Temperature RegulationReview | Chapter 12 |
| 6/8 Friday  | **Test #3**  | CH 9, 10 & 11 |
|  6/11 Monday | Exercise and the Environment | Chapter 24  |
| 6/12 Tuesday | The Physiology of TrainingAnaerobic & Resistance | Chapters 13 & 21 |
| 6/13 Wednesday | The Physiology of TrainingAerobic | Chapter 13 & 21 |
| 6/14 Thursday | Exercise tests for Aerobic FitnessReview | Chapter 15  |
| 6/15 Friday | **Test #4** | CH 12/24/13  |
| 6/18 Monday | Laboratory Assessment of Human Performance | Chapter 20  |
| 6/19 Tuesday | Training for Female Athletes, Masters etc. | Chapter 22  |
| 6/20 Wednesday | Review for final  |  |
| 6/22 Friday | **Final Exam**  | **Chapter 15, 20, 22** |